

§ 1926.761

29 CFR Ch. XVII (7–1–10 Edition)

side or edge more than 15 feet (4.6 m) above a lower level shall be protected from fall hazards by guardrail systems, safety net systems, personal fall arrest systems, positioning device systems or fall restraint systems.

(2) *Perimeter safety cables.* On multi-story structures, perimeter safety cables shall be installed at the final interior and exterior perimeters of the floors as soon as the metal decking has been installed.

(3) Connectors and employees working in controlled decking zones shall be protected from fall hazards as provided in paragraphs (b) and (c) of this section, respectively.

(b) *Connectors.* Each connector shall:

(1) Be protected in accordance with paragraph (a)(1) of this section from fall hazards of more than two stories or 30 feet (9.1 m) above a lower level, whichever is less;

(2) Have completed connector training in accordance with § 1926.761; and

(3) Be provided, at heights over 15 and up to 30 feet above a lower level, with a personal fall arrest system, positioning device system or fall restraint system and wear the equipment necessary to be able to be tied off; or be provided with other means of protection from fall hazards in accordance with paragraph (a)(1) of this section.

(c) *Controlled Decking Zone (CDZ).* A controlled decking zone may be established in that area of the structure over 15 and up to 30 feet above a lower level where metal decking is initially being installed and forms the leading edge of a work area. In each CDZ, the following shall apply:

(1) Each employee working at the leading edge in a CDZ shall be protected from fall hazards of more than two stories or 30 feet (9.1 m), whichever is less.

(2) Access to a CDZ shall be limited to only those employees engaged in leading edge work.

(3) The boundaries of a CDZ shall be designated and clearly marked. The CDZ shall not be more than 90 feet (27.4 m) wide and 90 (27.4 m) feet deep from any leading edge. The CDZ shall be marked by the use of control lines or the equivalent. Examples of acceptable procedures for demarcating CDZ's can be found in Appendix D to this subpart.

(4) Each employee working in a CDZ shall have completed CDZ training in accordance with § 1926.761.

(5) Unsecured decking in a CDZ shall not exceed 3,000 square feet (914.4 m²).

(6) Safety deck attachments shall be performed in the CDZ from the leading edge back to the control line and shall have at least two attachments for each metal decking panel.

(7) Final deck attachments and installation of shear connectors shall not be performed in the CDZ.

(d) *Criteria for fall protection equipment.* (1) Guardrail systems, safety net systems, personal fall arrest systems, positioning device systems and their components shall conform to the criteria in § 1926.502 (see Appendix G to this subpart).

(2) Fall arrest system components shall be used in fall restraint systems and shall conform to the criteria in § 1926.502 (see Appendix G). Either body belts or body harnesses shall be used in fall restraint systems.

(3) Perimeter safety cables shall meet the criteria for guardrail systems in § 1926.502 (see Appendix G).

(e) *Custody of fall protection.* Fall protection provided by the steel erector shall remain in the area where steel erection activity has been completed, to be used by other trades, only if the controlling contractor or its authorized representative:

(1) Has directed the steel erector to leave the fall protection in place; and

(2) Has inspected and accepted control and responsibility of the fall protection prior to authorizing persons other than steel erectors to work in the area.

§ 1926.761 Training.

The following provisions supplement the requirements of § 1926.21 regarding the hazards addressed in this subpart.

(a) *Training personnel.* Training required by this section shall be provided by a qualified person(s).

(b) *Fall hazard training.* The employer shall train each employee exposed to a fall hazard in accordance with the requirements of this section. The employer shall institute a training program and ensure employee participation in the program.

(c) *Special training programs.* In addition to the training required in paragraphs (a) and (b) of this section, the employer shall provide special training to employees engaged in the following activities.

(1) *Multiple lift rigging procedure.* The employer shall ensure that each employee who performs multiple lift rigging has been provided training in the following areas:

(i) The nature of the hazards associated with multiple lifts; and

(ii) The proper procedures and equipment to perform multiple lifts required by § 1926.753(e).

(2) *Connector procedures.* The employer shall ensure that each connector has been provided training in the following areas:

(i) The nature of the hazards associated with connecting; and

(ii) The establishment, access, proper connecting techniques and work practices required by § 1926.756(c) and § 1926.760(b).

(3) *Controlled Decking Zone Procedures.* Where CDZs are being used, the employer shall assure that each employee has been provided training in the following areas:

(i) The nature of the hazards associated with work within a controlled decking zone; and

(ii) The establishment, access, proper installation techniques and work practices required by § 1926.760(c) and § 1926.754(e).

[66 FR 5265, Jan. 18, 2001, as amended at 73 FR 75589, Dec. 12, 2008]

APPENDIX A TO SUBPART R OF PART 1926—GUIDELINES FOR ESTABLISHING THE COMPONENTS OF A SITE-SPECIFIC ERECTION PLAN: NON-MANDATORY GUIDELINES FOR COMPLYING WITH § 1926.752(e).

(a) *General.* This appendix serves as a guideline to assist employers who elect to develop a site-specific erection plan in accordance with § 1926.752(e) with alternate means and methods to provide employee protection in accordance with § 1926.752(e), § 1926.753(c)(5), § 1926.757(a)(4) and § 1926.757(e)(4).

(b) *Development of a site-specific erection plan.* Pre-construction conference(s) and site

inspection(s) are held between the erector and the controlling contractor, and others such as the project engineer and fabricator before the start of steel erection. The purpose of such conference(s) is to develop and review the site-specific erection plan that will meet the requirements of this section.

(c) *Components of a site-specific erection plan.* In developing a site-specific erection plan, a steel erector considers the following elements:

(1) The sequence of erection activity, developed in coordination with the controlling contractor, that includes the following:

(i) Material deliveries;

(ii) Material staging and storage; and

(iii) Coordination with other trades and construction activities.

(2) A description of the crane and derrick selection and placement procedures, including the following:

(i) Site preparation;

(ii) Path for overhead loads; and

(iii) Critical lifts, including rigging supplies and equipment.

(3) A description of steel erection activities and procedures, including the following:

(i) Stability considerations requiring temporary bracing and guying;

(ii) Erection bridging terminus point;

(iii) Anchor rod (anchor bolt) notifications regarding repair, replacement and modifications;

(iv) Columns and beams (including joists and purlins);

(v) Connections;

(vi) Decking; and

(vii) Ornamental and miscellaneous iron.

(4) A description of the fall protection procedures that will be used to comply with § 1926.760.

(5) A description of the procedures that will be used to comply with § 1926.759.

(6) A description of the special procedures required for hazardous non-routine tasks.

(7) A certification for each employee who has received training for performing steel erection operations as required by § 1926.761.

(8) A list of the qualified and competent persons.

(9) A description of the procedures that will be utilized in the event of rescue or emergency response.

(d) *Other plan information.* The plan:

(1) Includes the identification of the site and project; and

(2) Is signed and dated by the qualified person(s) responsible for its preparation and modification.

APPENDIX B TO SUBPART R OF PART 1926
[RESERVED]